Are B Corps inviting women to dance? An overview of the representativity of women in purpose-driven companies

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Despite the recent advances in women labor-market participation, several companies are still not inclusive environments for women. As different programs and efforts in favor of inclusion have arisen, the discussion on this hurdle became more patent. Among the initiatives that have spoken up are the B Corporations, a group of purpose-driven companies certified for their good social and environmental practices. Some of the practices evaluated by the B Certification process are good proxies for the level of inclusion promoted by the companies, making them likely to be above the average when it comes to gender-inclusion. This paper aims to verify if B Corporations are indeed more inclusive than mainstream companies. Though we had to be careful with reading too much into our results - due to our very limited sample sizes -, we find that, in all analyzed countries - except for Colombia -, B Corporations have a statistically higher proportion of women in the workforce. We also find that Chilean B Corporations have, on average, a statistically higher share of women among its owners. Colombia and Argentina, on the other hand, present a significantly smaller proportion of women in ownership. On top, we verify that B Corporations are not statistically different - except for Colombia - in terms of the share of women in the workforce. We believe that this is a sign that B Lab is being able to homogeneously select companies under high standard criteria, despite the different contexts in each country.

Introduction

The workplace environment tends to be misfit to women presence. Even though companies have increasingly been making efforts to fight gender inequality, it remains not uncommon for women to be less recognized by their co-workers (Eagly and Karau, 2002; Wu, 2017), face greater challenges in terms of career development (Adams and Kirchmaier, 2016; Card *et al.*, 2015; Sorkin, 2017) and when undertaking decision-making and leadership positions (Eagly and Karau, 2002), be less likely to be hired for the same positions as men (Goldin and Rouse, 1997) and have job opportunities with less social protection (ONU Mulheres, 2015). When they have children, the difficulties can be even greater (Angelov *et al.,* 2016; Bertrand *et al*., 2011; Kleven and Landais, 2017; Lundborg *et al.,* 2017).

It is true that progress has been made in the recent years, bolstered by the greater access to contraceptive methods (Goldin and Katz, 2002), education (Goldin, 2006) and

[1] We would like to thank the *Academia B* and the IDRC, for providing us with the opportunity of developing a proposal focused on such a relevant and necessary theme. We hope we can contribute with critical thinking over the performance of Certified B Corporations we believe is important to enhance the B Movement and the operations of the B Lab and the *Academia B*. We would also like to think the B Lab, for providing us with the data required for this analysis.

durable goods (Greenwood *et al.,* 2005) - all of which have significantly contributed to increasing the female labor-market participation. Nonetheless, the inequality of opportunities persists, having the so studied gender gap in pay as one of its most outstanding consequence.

As well points the evidence gathered by Bertrand (2018), a significant part of the gender wage gap seems to be explained by male to female differences in education, psychological attributes, demand for flexibility and housework burden. The education component has been mostly based on the argument that women have overtaken men in terms of completed years of schooling (Bertrand *et al.,* 2010; Gasparini and Marchioni, 2015; Goldin *et al.*, 2006; Reuben *et al*., 2015), but have not yet catched up with them when it comes to wages. It must be noted, however, that women seem to choose degrees and fields of study that yield less earnings throughout their careers (Bertrand, 2018; Card *et al.*, 2015), which may represent a reaction to environments that remain hostile to them.

In fact, by showing that they do as well as men when competing with other women, but perform worse if the competition includes men, Gneezy *et al.* (2003) suggest that male work environments might make women more uncomfortable. Along with these findings, other researches corroborate with the argument that women's career decisions tend to be influenced by the workplace atmosphere, by pointing that they seem to avoid risk (Croson and Gneezy, 2009; Dohmen *et al.,* 2011; Eckel and Grossman, 2008) and competition (Buser *et al*., 2014; Flory *et al.,* 2015; Gneezy *et al.,* 2003; Niederle and Vesterlund, 2007) when compared to men.

Given that volatility is correlated with higher earnings (Dohmen *et al*., 2011) and women seem to avoid jobs that put them against men, it might be the case that these differences in psychological attributes are partially responsible for the gender wage gap. Following this line of thought, Flory *et al.* (2015) find that the difference in choices of competition and risk related to job entry are more likely to occur when tasks or activities are perceived as more "male", which reinforces how inappropriate to female workers can these workplaces be.

Differences in demand for flexibility have also been pointed as a possible explanation for gender wage gaps. Probably because women are the ones who most carry the burden of housework and childcare, they seem to choose more flexible jobs, which happen to be, on average, the less paid ones (Bertrand *et al*., 2010; Card *et al.,* 2015; Goldin, 2014; Mas and Palais, forthcoming; Wiswall and Zafar, forthcoming).

Finally, there is the evidence on the impact of non-labor work and childcare on women's earnings. Bertrand *et al.* (2010) show that, while mothers with MBAs work shorter hours and have fewer years of accumulated labor market experience than men with MBAs, women with MBAs and no children do not differ from the same men. Angelov *et al.* (2016) and Kleven and Landais (2017) also provide significant evidence: in the contexts of Sweden and Denmark, respectively, they verify that husbands' and wives' earnings grow in parallel until they have their first child, when the wage gap within couples sharply increases.

Recent research on the psychology field, however, has been amplifying the discussion over gender inequality to the wider concept of *inclusion*. As pointed by a group of authors (Sherbin, L. and Rashid, R., 2017; Ferdman *et al.*, 2010)., women are not only affected in terms of representation, with lower earnings and employability, but are also distinctly treated when it comes to inclusion. Differently from the concept of *diversity*, which is related to representation, inclusion has been associated with relations, occurring when individuals feel encouraged and valued in an organization. The difference between the two concepts is well conveyed by the diversity specialist, Vernã Meyers, when she states that while "diversity is being invited to the party; inclusion is being invited to dance".

According to the recent literature (Sherbin, L.; Rashid, R., 2017; Ferdman *et al.,* 2010), due to the usual confusion between both concepts, much more investment has been made on diversity than on inclusion, for which the advances have been considerably slower. As the distinction between the two concepts becomes clear, the claims for organizations to go one step further of solely women representativeness increase. In the corporate world, the B Corporations are one of the forces making efforts to change the current reality.

B Corporations are purpose-driven companies that are certified by B Lab, an american non-profit organization focused on stimulating businesses to improve their social and environmental practices. The process of certification involves a rigorous evaluation of the company's practices with respect to governance, employees, interaction with related communities, business model and the environment. The standards required for certificating are high in order to guarantee that B Corporations are considerably different from mainstream businesses.

Adding up to 2500 companies in 2018, the movement of B Corporations has successfully presented a new paradigm of the role of businesses. Not surprisingly, inclusion of women is part of the proposed guidelines, so that companies score higher when they favor female suppliers, hire a fair proportion of women, offer extended benefits to mothers (and fathers), build business models focused on improving women's lives and have more women in management positions and/or ownership.

To our knowledge, there is no study focused on evaluating if B Corporations are in fact promoting more inclusion of women than the average of companies. This paper aims to fill this gap, by testing for statistical differences between B Corporations and other companies in terms of including women. Given how recent is the awareness of inclusion as a further step to be taken, we still lack formalized measures and data on inclusion from organizations. We do believe, however, that companies that most invest in diversity are more likely to promote higher levels of inclusion. We therefore compare B Corporations with other companies in terms of: women ownership, share of women among employees and share of women in management positions.

Using anonymized confidential data on B Corporations provided by B Lab, the World Bank and national firm-level datasets for Argentina, Brazil, Chile and Colombia, we were able to conduct difference in means tests of those parameters.

Though we must be careful with reading too much into our results - due to our very limited sample sizes -, we find that, in all analyzed countries - except for Colombia -, B Corporations have a statistically higher proportion of women in the workforce. We also find that Chilean B Corporations have, on average, a statistically higher share of women among its owners. Colombia and Argentina, on the other hand, present a significantly smaller proportion of women in ownership. On top, we verify that B Corporations are not statistically different - except for Colombia - in terms of the share of women in the workforce. We believe that this is a sign that B Lab is being able to homogeneously select companies under high standard criteria, despite the different contexts in each country.

The B Movement and B Corporations

The B Movement was created in 2006, with the foundation of B Lab - an american non-profit organization whose main goal is to help companies to be better *for* the World. The founders - Jay Coen Gilbert, Bart Houlahan and Andrew Kassoy - had worked in the private sector for years, and believed that businesses could be used as force to promote social change. The idea was to create a new process of certification for companies that were doing better with their social and environmental practices. The companies that went through this process would be certified as B (for benefit) Corporations, and would compromise to create value not only for investors, but for all stakeholders involved.

From certified B Corporations and B Corp applicants, B Lab would require them to take the B Impact Assessment (BIA) - a survey that evaluates practices related to the environment, employees, accountability and local communities (CHO, 2016). To the time this paper was written, companies could score up to 200 in the BIA, and were required a minimum of 80 points in order to certify. After submitting the BIA, the company would have to go through several calls with the B Lab staff and provide documentation as proof for the answers marked in the form. If the company were able to verify at least 80 points, it would be certified as a B Corp. The B Lab would then require the company to sign a declaration of interdependence, and pay an annual licensing fee for the certification (Neubauer, 2016).

The first certification happened in June 2007. Since then, the B Movement went global, certifying companies all over the World. In 2018, over 2,500 companies in 50 countries were Certified B Corporations (B Lab, 2018), whereas 40,000 companies were using the BIA - which is confidential and offered for free. Moreover, several B Corporations have been identified as fast growing companies (Cho, 2016).

In 2010, the state of Maryland, in the United States, became the first to legally recognize B Corporations as a distinct corporate modality (Neubauer, 2016). Since then, 30 other states have adopted similar statutes. Under these laws, directors and officers of companies legally configured as benefit corporations are required to consider the best interest of workers, the community, and the environment in addition to that of shareholders. They are also legally protected for doing so.

B Corporations are therefore businesses that have purpose as one of its core values, most of the times considering it as important as profits. This does not mean, however, that profits are harmed by good practices. As argued by Grant (2013), entrepreneurs

explore the certification status to make more profit, besides fostering environmental sustainability and generating social impact.

The profitable gains are pointed by Michelle Cho (2016). She argues that, in in the United States, the B Corporation model has boosted businesses by "offering incorporating companies a positive image", as well as a "platform to build consumer trust and flexibility to pursue social good". She also stresses that, given the State's usual lack of verification mechanisms, B Lab would also play an "important role as the primary enforcement entities ensuring that benefit corporations adhere to their stated purposes".

Houlahan & Osusky (2016) make the same point as Cho, and list the benefits that the B Certification is offering to stakeholders:

> [...] "equips businesses and investors with a platform for benchmarking, measuring and reporting on impact; it is providing a sustainable operating system for business by allowing companies to expand their fiduciary duties to include the consideration of their stakeholders; and it is enabling millions of consumers, workers, entrepreneurs, and investors to join the movement all over the world. (HOULAHAN & OSUSKY, 2016, p. 2)

Grant (2013) argues that another particular benefit provided by the B Certification is related to the fact that employees are eager to work for high-purpose businesses. He points that:

> Perceptive corporate leaders will want to tap into this impetus and desire in order to have a sustainability impact in order to build equity in employee morale, engagement, loyalty, and general job satisfaction. [B corporations] have a unique advantage by recruiting employees who will make a conscious choice and decision to work for á corporation with an egalitarian mission, as opposed to a statutory duty to return maximum profits to one constituency—shareholders. [They] will succeed because employees will have increased pride and utility from a corporation that provides a positive public benefit to society. (GRANT, 2013, p. 598-599)

Because of fall the mentioned attributes of B Corporations, authors such as Houlahan and Osusky (2016) argue that the B Movement is setting a standard goal in business for social and environmental performance, accountability and transparency. In Latin America, the B Movement is supported and bolstered by Sistema B, a non-profit that partnered with B Lab to make the Movement global.

Data

The analysis was made with data from Argentina, Brazil, Chile and Colombia. For information on B Corporations, we used an anonymized firm-level dataset provided by B Lab, with information on each firm's proportion of women in ownership, workforce and management. For the other companies, we used the World Bank's Enterprise Surveys and national administrative data collected at the firm level.

The Enterprise Surveys database is an initiative conducted by the World Bank, and is focused on providing firm-level data from countries around the World. It currently offers data on 135,000 firms in 139 countries, in surveys that took place in the 2000's. The surveys are usually answered by business owners and top managers, though

accountants and human resource managers are often invited to support with questions related to sales and labor sections.

The Enterprise Surveys do not have a fixed schedule for its application; that is, each country has data for different years, and for most of the countries, we have no access to panel data. For Argentina, we used a 2017 survey, which was ideal to match with our B Lab dataset - which was restricted to 2017 as well. For Brazil, however, we were only able to access data from 2009. Given that things may have considerably changed from 2009 to 2017, we had to be conservative with our results for Brazil . Therefore, finding a difference between the 2017 B Lab data and the 2009 Brazilian survey could be solely due to the fact that the 2009 data does not capture the differences over time - if such is the case, if we had data for mainstream companies in 2017, we would see no difference between them and B Corporations.

For Chile, we used a biannual governmental survey entitled *Encuesta Longitudinal de Empresas* (ELE), which consists of a sample survey that has been conducted since 2009 by the Chilean government's National Institute of Statistics. The ELE gathers data provided by the Chilean Ministry of Economy, Development and Tourism commissions and the National Institute of Statistics. The survey covers all the formal companies in Chile that offer and develop their productive activities in the National territory. It consists of a sample survey, with a stratified probabilistic design in which firms are tracked according to their economic sectors and size (measured by their annual sales). In our analysis, we used the 2015 ELE, whose sample size was of 8,084 companies.

For Colombia, we used three datasets provided by the Colombian National Administrative Department of Statistics (DANE). They consisted of firm-level data built from national surveys on manufacturing (Encuesta Anual de Manufactura), services (Encuesta Anual de Servicios) and commerce (Encuesta Anual de Comercio). Adding up the three datasets for the year of 2016, we ended up with a sample of 24,315 companies.

The national surveys were harmonized to match with B Lab's data on women. Due to lack of data in the surveys, we were unable to take advantage of the BIA's data on the proportion of women in management positions. We therefore restricted our analysis to the proportion of women that own and that work for the companies. Unfortunately, the sample size of the B Corporations dataset was too small[2]. Because of that, we had to be very careful with the conclusions that emerged from our results.

Methodology

The main purpose of this article is to verify whether the proportion of women in B Corporations is different from their proportion in typical companies. We attempt to do

[2] For Argentina, we had 29 observations for women ownership and 18 for participation in workforce. The same numbers were, respectively, 50 and 37 for Brazil; 53 and 39 for Chile; and 23 and 17 for Colombia.

this by using standard statistical procedures to compare the percentage of women in the workforce and ownership of an average B Corporation with these percentages in the average company *within the same country*.

While this might help us understand a bit more about female representation in B Corporations, we understand that these variables do not capture all dimensions of inclusion. They do not account for several ways through which companies can improve women's work experience. For instance, they fail to measure if firms are providing jobs and benefits for low-income women or creating products related to their unmet basic demands. Moreover, even a company which has several women among its employees and owners could still not be a place where women are heard or called upon to make important decisions. It is therefore important to understand that the *presence* of women is only a first step in terms of their overall inclusion in companies.

Nevertheless, because of the lack of data on women's *experience* in enterprises, our analysis was focused on evaluating how different the representation of women is among B Corporations relative to the rest of the market. Though it would have been better to look at other measures of inclusion, we believe that this is a first and minimum step to be taken by companies that seek to be inclusive. We therefore understand that checking if B Corporations are above average when it comes to female ownership and labor force participation might be a useful insight for the B Movement.

Our approach in this study is quite basic: we wish to test the hypothesis that B Corporations are no different from normal corporations in the same country when it comes to female representation in workforce or ownership participation rates. We use a "difference in means" statistical procedure to do this. In this procedure we first calculate the proportion of women in B Corporations and the proportion of women in regular enterprises, finding the difference of the two. We then ask the question: given the variation in our data – how much the proportion of women varies from one B Corporation to the next, and how much the proportion of women varies from one regular company to the next – how likely is it that B Corporations are no different from a regular company? If our difference is sufficiently extreme, we *reject* the null hypothesis of equality.

We keep our analysis constrained to comparing companies within the same country out of caution. Different countries have distinct participation rates for women due to a number of structural and cultural reasons, and therefore contrasting B Corporations in one country (say, Argentina) with regular corporations in some other locale (say, Brazil) could lead us to see differences in female representation because of reasons unrelated to B Corporation status.

We do, however, compare B Corporations across distinct regions. If the differences in the proportion of women across countries (for whatever set of reasons) does not translate to similar differences in B Corporations belonging to distinct countries, this suggests that there is a common "culture" to B Corporations which compensates, at least to some degree, country-specific factors.

Because there are a number of differences between B Corporations and regular companies for which we have data – B corporations tend to be smaller, for one – we also produce bar graphs for B and Non-B companies of similar sizes. We do this in order to have a more granular sense of how these two types of companies compare within size buckets, and to see how much of a determinant of our results company size might be.

It is important to note that this framework does not allow us to infer a causal relationship between becoming a B Corporation and promoting the inclusion of women. The main reason behind this is that B Corporations self-select for certification, which implies that there may be other non-observable factors, aside from the certification process itself, which are common across B Corporations and affect their diversity and inclusion choices.

It might be the case, for example, that all B Corporations belong to progressive urban areas where female workforce participation is higher, and that they therefore are no different from the non-B companies in that same environment. It could also be that all B Corporations are companies which were founded with a social purpose, and that they only sought the B Certification to find a means of signaling their culture to customers. It is also possible, of course, that the certification process is what encouraged companies to become more inclusive. In truth, all of these factors (and others) are likely at play.

In any of the aforementioned cases we would – with enough data – probably find that companies which get their B Certification are statistically different from the average non-B company with respect to female inclusion. However, it is very difficult to determine if this difference is due to the certification process, to being part of the community created by the B Movement, to company-specific practices or to other environmental and unobserved factors. In other words, causal inference between B Certification and the inclusion of women in B Corporations would require a different, more rigorous setup in which the only difference between companies was certification. This is of course quite difficult to do, and it is therefore hard to attribute any difference between B Corporations and regular companies solely to the B Certification.

Given that companies that invest on becoming B Corporations are very likely to differ from other companies in their willingness to improve social or governance practices, we are not able to say that any possible statistical difference is exclusively caused by the B certification. However, finding that there is more gender-diversity in B Corporations allows us to at least verify whether the B Certification is successfully identifying firms that are more gender-inclusive than their country average and, if so, where.

Analysis

As described in our methodology overview, our analysis focuses on comparing the average proportion of women in the workforce or ownership structure of B and non-B

Corporations. We do this in two stages. We first calculate full sample averages of both sets of companies, verifying how statistically different these averages[3] are (within the same country). In this first step, and using this same data, we compare B Corporations' inclusivity metrics across different countries.

Our second step is to further break down the data into the workforce ranges which were provided to us in the B Lab data. Here, we look at the proportion averages within these ranges for both types of company (B and Country-Wide), testing to see whether these are distinct. The number of observations in these comparisons is significantly smaller, and we therefore advise against reading too much into these results because of the combined effect of our data processing[4] and the small sample sizes involved.

Let's now review our results. Table 1 contrasts the average percentage of women in the workforce for B Corporations (left-hand panel) and country-wide enterprises (central panel) in each of the four countries for which we had sufficient data to do our analysis: Argentina, Brazil, Chile and Colombia. The right-hand panel contains two sets of column pairs, labeled respectively, "B Greater Than" and "B Less Than", which test the mutually exclusive hypotheses that B Corporation averages are either *greater than* or *less than* their non-B counterparts.

The results are quite interesting. In Argentina, Brazil and Chile, we find that B Corporations have a significantly higher proportion of women in their workforces than companies outside of the B universe, both economically and statistically. In all three countries the proportion of women in B Corporations is above 40%, while the proportion of women in the average country-wide company ranges from 22 to 31%. In Brazil, where we have the largest number of B companies reporting female workforce participation, we find a 16 percentage point gap between the average B Corporation and the broad average, for instance. Although our sample size is fairly small for B Corporations, a gap this large should make us feel that it is very likely that these companies are quite different in their gender balance than the regular corporation in their countries.

The exception in our findings is Colombia. In this country, not only is the country average of women in the workforce *high* (above the 40% threshold which we observed for B Corporations elsewhere), but the average female participation in B Corporations is also quite *low*. These results are not only quite strong economically (there is an 8 percentage point gap between the two types of companies), but it is also strong statistically. In Colombia, it is quite likely that B Corporations indeed have *less* female participation than regular corporations. While we cannot intuit why this might be the

[3] These averages are equal-weighted when we look at ownership (each company's data has the same "weight"), and workforce-weighted when we look at workforce data (each company's data is weighted proportionally to the size of the workforce). Since workforce data was provided in ranges for B Corporations, we used the average number of employees for country-level companies within that same workforce range as our estimate of how many employees a B Corporation had. Though far from ideal, this is the most advisable approach when the granularity of the data is so coarse.

[4] Which required the imputation of workforce proportions due to the data being provided in ranges, something which could lead us to have underestimated the standard errors of our data.

case from our data, we suggest that the B Movement, with the greater data that it might have at its disposal, attempt to understand this phenomenon.

The Table 2 contains the comparisons of B Corporations across countries. The first column makes explicit which two countries we are contrasting with each other, the second and fourth columns have the individual country means, and the following column pairs show the p-values associated with each *alternative hypothesis*[5]. It is not hard to see that the means of our B Corporations are almost all so close that it is impossible to **statistically** distinguish them.[6] As we might expect, we can only reject that Colombia's proportion of women (which is quite low) is different from Brazil and Chile's at the 5% threshold (both of which are meaningfully higher). Although this "failure to reject a difference" might come from our fairly small samples, it also gives some credence to B Corporations being perhaps more similar to each other than they are across countries.

The final piece of our analysis for female representation within the workforce is the bar graph in Figure 1, which breaks down the averages of B and Non-B enterprises by ranges of employees. By doing this, we can more easily see if it is small or medium-sized companies which are driving the differences between B Corporations and their regular peers in terms of representation.

Interestingly, there seems to be no systematic size bias driving the results for B Corporations. In some countries, like Argentina, medium-sized B corporations (10-49 employees) have a significantly higher female representation rate in the workforce than medium-sized companies in the country as a whole (*see* Table 3) . In others, like Brazil, it is small companies (1-9 employees) which seem to drive the gap between B Corporations and the rest. While the small sample sizes here should cause us to pause before reading too much into any individual result, the pattern of results does suggest that our aggregate means are not distinct because of a size bias in B Corporations. This is reassuring.

Let's now switch gears to Ownership. Table 4 presents analogous tests to Table 1: it compares the average percentage of B Corporations that are owned by women with the same number for companies outside of the B universe in each of the four countries. This time, the results are more intriguing: while the B Corporations in Chile have a significantly higher proportion of women as their owners than the average country-wide company (41% opposed to 21%); the average share of women ownership in B Corporations from Colombia and Argentina is significantly lower than it is in non-B companies. The numbers for Argentina are not much significant and the difference in

[5] The alternative hypothesis is the hypothesis which we accept should we reject the null hypothesis. As such, if a column says "mean of country A > mean of country B", this means that we are testing the null hypothesis of country **B**'s mean being greater than country **A's**(that is, the other way around). Our p-value indicates what the probability is of getting a result as extreme as the one we find **given that the null is true**. If this number is sufficiently low, then the likelihood of our null being true is quite low, and we therefore say that we **reject the null hypothesis at the x% threshold**(where x is our p-value).

[6] While we might have two means – say, Argentina's and Colombia's – which look really far apart, the fact that we have such a small sample size means that it's hard to say that this effect couldn't just come from random variation.

means (21% versus 29%) is the smallest in the three countries. Therefore, we cannot assure that this difference indeed exists or if it is a consequence of our small sample size.

In Colombia, on the other hand, the findings seem to be more assertive: while B Corporations present an average share of 21%, non-B enterprises had an average proportion of 38%. Moreover, the test suggests that the B-Corporations average is significantly smaller than the country-wide companies at 1% significance level, which increases our confidence in the results. That way, though B Corporations in Chile are somehow likely to have reached high standards in terms of gender-inclusion, the evidence suggests that they still have a way to go in other countries.

Interestingly, the results we find for ownership in Colombia align with the findings for workforce: Colombian B Corporations seem to have lower female participation in both employment and society. One more time, it is important to stress that our sample size is very small, and that, for that reason, our results may not be representative of the reality.

Table 5 is similar to Table 2 in a sense that it presents the contrast the proportion of women ownership in B Corporations across countries. This time, we cannot reject that Colombian B Corporations are statistically different from those placed in Argentina and Chile. As shown in Table 4, the proportion of women in B Corps from Argentina is statistically smaller than the average shares of Chilean and Colombian B Corporations. It is interesting to note that there seems to be no difference between Chilean and Argentinian B Corporations; whereas the results in Table 3 show that the proportion of women that own B Corporations in Argentina is smaller than in the non-B enterprises at a 10% significance level, while the certified companies in Chile have a significantly greater share of women in ownership. Though there is a possibility that the results from Argentina are due to chance, an alternative would be that the both Argentinian B Corporations and non-B businesses, as well as Chilean B Corporations, have high standards of gender-inclusion in ownership, while the average company in Chile is doing much worse in this matter.

From the graph in Figure 2 and Table 6, we can see that, also for ownership, there seems to be no systematic size bias. Whereas companies with 1-9 employees seem to drive the general results in Chile, medium companies with 10-49 employees make a bigger difference in Argentina, and bigger businesses (50-249) stand out in Colombia. The small-sample caution also applies to these results.

Conclusions and recommendations

Despite the restrictions imposed to our data due to a problem of small sample size, the results presented in the previous section shed some light on how gender-inclusive are the B Corporations. In short, we find that they are likely to be above the average company when it comes to the proportion of women in labor force. In particular, the

results show that B Corps from different countries, on average, are not very different among themselves. We understand this as a sign that the B Lab is being successful in constructing an uniform gender-representativity criteria - which aggregates companies from all over the World despite cultural and contextual differences.

The results for representativity in ownership are different. Though Chilean B Corporations are very likely to have a considerably greater share of women among their owners, we find an opposite pattern for Argentina and Colombia - which, once again, may be a consequence of our small sample size. In Colombia - where the proportion of women in ownership is considerably significantly smaller compared to other companies -, the results are coherent with our findings for workforce: among the four countries analyzed here, Colombia is the single where the proportion of women among employees is significantly smaller in B Corporations than in their counterparts.

For both the ownership and the workforce indicators, there seems to be no size bias.

Given these results, we believe that it could be useful for the B Lab and the Sistema B to reflect on the following recommendations:

- A more rigorous data collection could be beneficial for future evaluations of B Corporations. For several questions in the B Impact Assessment, the answer choices are ranges (e.g. the possible answers for the item on the number of employees are: (i) 0; (ii) 1-9; (iii) 10-49; (iv) 50-249; (iv) 250-999; (v) 1000+). Analyzing data on ranges increases the data variance and reduces the likelihood of finding the most reliable results. We believe that the BIA should require the exact number of employees and female employees.
- Collecting data on companies before, while and after the B Certification process, for **both** the companies that were certified and the companies that did not make it to the certification, may allow for the causality inference. With this data, we would likely have two groups of very similar companies, that would only differ in terms of having the B Certification. We would then (likely) be able to evaluate the impact of the certification on companies. The evaluation would not be restrict to gender inclusion: provided with data on the several other indicators the BIA gathers, we would be able to investigate different positive effects that may be generated by the B Certification. The more data, the better.
- It is worth checking on what might be happening in Colombia. There seems to be something systematically different happening there.
- When weighting the scores given to the workforce representativity question, it would be advisable to weight those questions proportionally to the square root of the number of employees. This is important because, when a company has less employees, it is easier to enhance the proportion of women with one (or few) recruitments. For instance, a company with 0 employees can hire one single woman and increase its share of women from 0% to 100%. By the time this article was written, we had not information on how these scores were weighted.

- We understand that the representation of women in ownership is just one of the many criteria imposed by B Lab for the B Certification - which means that companies can compensate through several other impactful ways when they are not owned by women. However, given that the results on ownership do not undoubtedly point to a general difference between B Corporations and the non-B universe, we understand that it might be useful to put some thoughts into this matter. Trying to understand the possible reasons for no such difference - except for Chile - might be a good start.

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Figure 1: Average proportion of women in workforce by firm size in terms of number of employees (B Corps vs. other companies)

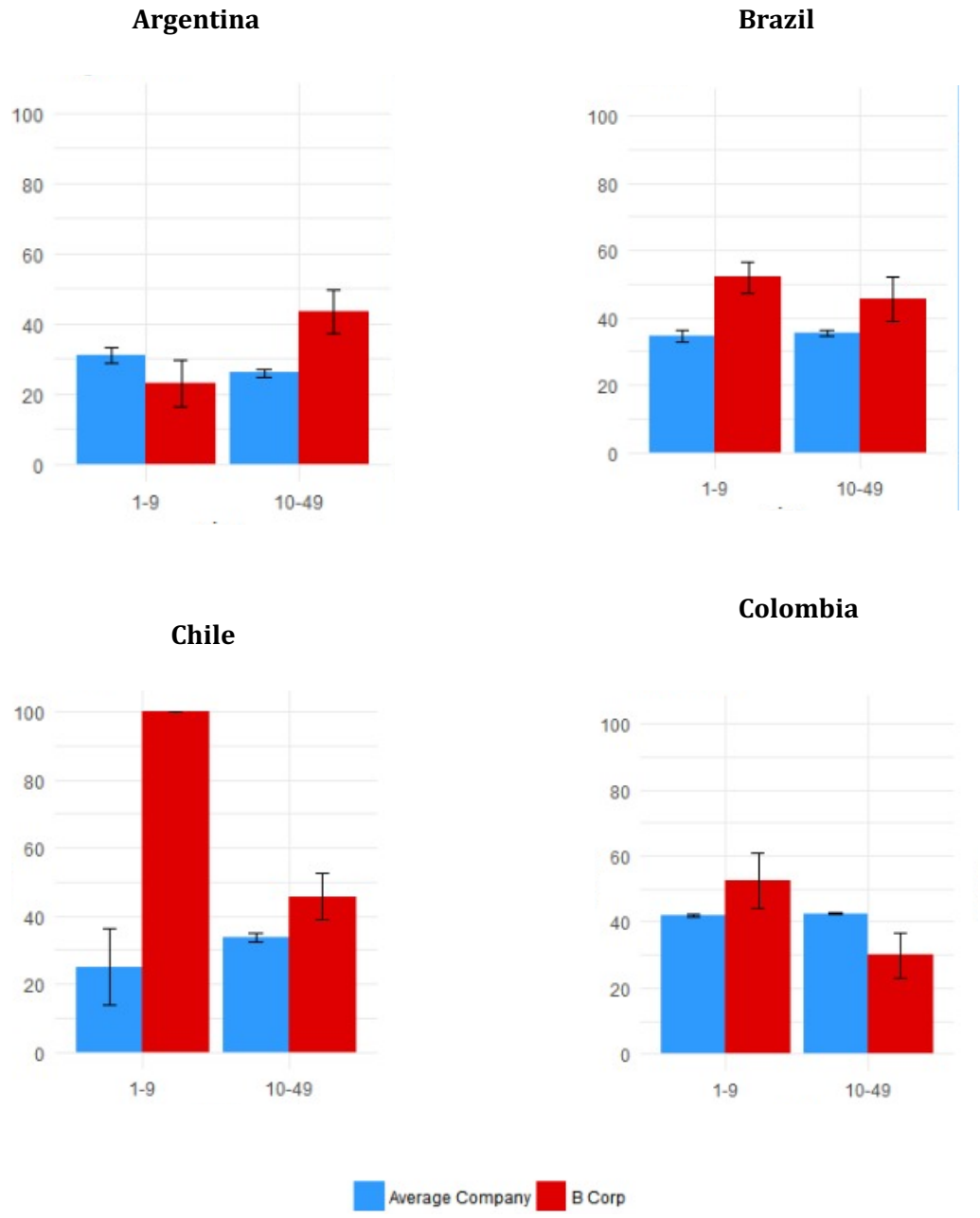
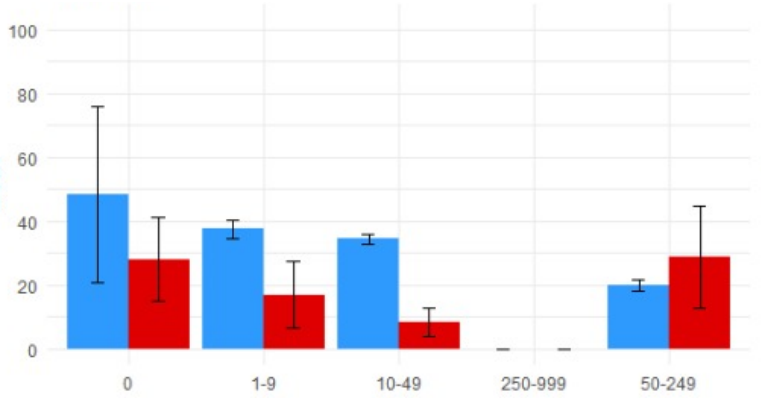
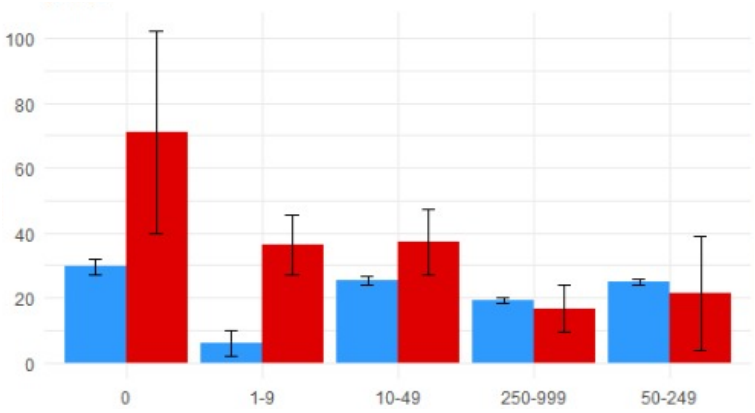


Figure 2: Average proportion of women in ownership by firm size in terms of number of employees (B Corps vs. other companies)

Argentina



Chile



Colombia

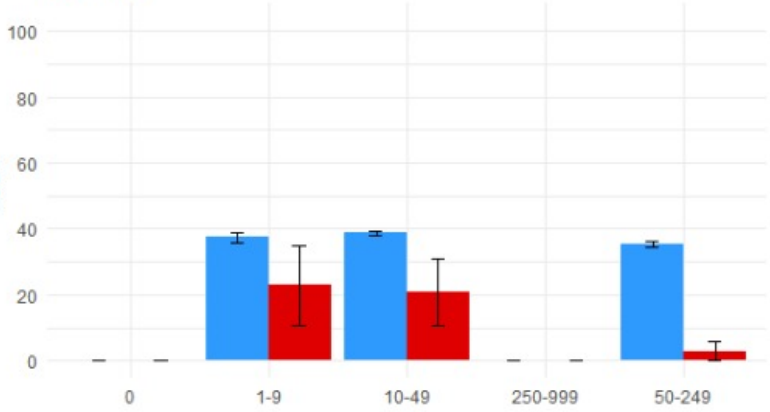


Table 1: Difference in means in workforce (B Corps vs. other companies)

	B Corps		*Average Companies*								
Country	**Mean**	**Number of Observations**	**Mean**	**Number of Observations**	**dif**	**p-value**	**B>**	**p-value**	**B<**	**p-value**	**Standard Error of the Difference**
Argentina	40,1	17	22,4	966	***	0.003	***	0.0015		1	5,1
Brazil	47,5	37	31	1,663	***	0.00025	***	0.00012		1	4,1
Chile	51,3	29	29,3	4,920	***	0.00072	***	0.00036		1	5,8
Colombia	34,7	16	42,8	23,380		0,16		0,92	*	0,08	5,5

Table 2: Difference in means in participation in workforce by firm size in terms of the number of employees (B Corps vs. other companies)

	B Corps			*Average Companies*								
Number of Employees/ Country	**Mean**	**Standard Error**	**Number of Observations**	**Mean**	**Standard Deviation**	**Number of Observations**	**dif**	**p-value**	**B>**	**p-value**	**B<**	**p-value**
Panel A: Argentina												
1-9	23	6.64	7	31	2.3	177		0.3		0.9		0.1
10-49	43	6.33	10	26	0.97	428	**	0.02	***	0.01		1
Panel B: Brazil												
1-9	52	5	22	35	2	265	***	0.002	***	0.001		1
10-49	46	6.66	15	35	0.99	854		0.2	*	0.08		0.9
Panel C: Chile												
1-9	100	0	12	25	11.2	16	***	0.000007	***	0.000004		1
10-49	46	6.8	17	34	1.2	911	*	0.1	**	0.05		1
Panel D: Colombia												
1-9	53	8.48	8	42	0.56	2242		0.3	*	0.1		0.9
10-49	30	6.89	8	42	0.19	12458	*	0.1		0.9	*	0.06

Table 3: Difference in means in participation in workforce (B Corps vs. B Corps from other countries)

Number of Employees	Mean	Number of Observations	Mean	Number of Observations	dif	p-value	mean of Country 1 > mean of Country 2	p-value	mean of Country 1 < mean of Country 2	p-value	Standard Error of the Difference
Argentina x Brazil	*Argentina* 40,1	17	*Brazil* 47,5	37		0.260		0,87		0,13	6,4
Argentina x Chile	*Argentina* 40,1	17	*Chile* 51,3	29		0,15		0,93	*	0,075	7,7
Argentina x Colombia	*Argentina* 40,1	17	*Colombia* 34,7	16		0,48		0,24		0,76	7,4
Brazil x Chile	*Brazil* 47,5	37	*Chile* 51,3	29		0,59		0,7		0,3	7,1
Brazil x Colombia	*Brazil* 47,5	37	*Colombia* 34,7	16	*	0,069	**	0,035		0,97	6,8
Chile x Colombia	*Chile* 51,3	29	*Colombia* 34,7	16	**	0,044	**	0.022		0,98	8

Table 4: Difference in means in ownership (B Corps vs. other companies)

	B Corps			*Average Companies*								
Country	**Mean**	**Number of Observations**	**Standard Error**	**Mean**	**Number of Observations**	**Standard Error**	**dif**	**p-value**	**B>**	**p-value**	**B<**	**p-value**
Argentina	21	29	5.9	29	586	1.1		0.2		0.9	*	0.09
Chile	41	53	7.7	21	5904	0.42	***	0.01	***	0.007		1
Colombia	21	23	6.3	38	5451	0.52	**	0.02		1	***	0.008

Table 5: Difference in means in ownership by firm size in terms of the number of employees (B Corps vs. other companies)

	B Corps			Average Companies								
Number of Employees	Mean	Standard Error	Number of Observations	Mean	Standard Deviation	Number of Observations	dif	p-value	B>	p-value	B<	p-value
Panel A: Argentina												
0	28	13.1	10	48.3	27.7	3		0.6		0.7		0.3
1-9	16.8	10.4	5	37.5	2.9	95	*	0.1		0.9	*	0.06
10-49	8.3	4.3	7	34.5	1.6	253	***	0.0005		1	***	0.0003
50-249	28.8	16	6	19.8	1.7	177		0.6		0.3		0.7
Panel B: Chile												
0	71	31.23	10	30	2.38	306		0.2	*	0.1		0.9
1-9	36	9.28	22	6	4.14	14	***	0.006	***	3		1
10-49	37	10.03	13	25	1.31	824		0.3	*	0.1		0.9
50-249	21	17.46	5	25	0.87	1542		0.9		0.6		0.4
250-999	17	7.26	3	19	0.72	1601		0.8		0.6		0.4
Panel C: Colombia												
1-9	23	12.07	8	37	1.53	691		0.3		0.9	*	0.1
10-49	21	10.02	8	39	0.67	3322	*	0.1		0.9	*	0.06
50-249	3	3	5	35	1.08	1148	***	0.0001		1	***	0.00007

Table 6: Difference in means in ownership (B Corps vs. B Corps from other countries)

Number of Employees	Mean	Number of Observations	Mean	Number of Observations	dif	p-value	mean of Country 1 > mean of Country 2	p-value	mean of Country 1 < mean of Country 2	p-value	Standard Error of the Difference
Argentina x Chile	*Argentina* 16.6	19	*Chile* 21.5	43		0.55		0.72		0.280	8
Argentina x Colombia	*Argentina* 16.6	19	*Colombia* 38.1	22	*	0.065		0.97	**	0.033	11
Chile x Colombia	*Chile* 21.5	43	*Colombia* 38.1	22	*	0.098		0.95	**	0.049	9.8